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Perception of Climate for Change in the Work Place

Rose Marie Tondl

PERCEPTION OF CLIMATE FOR CHANGE IN THE WORK PLACE

by

Rose Marie Tondl

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PERCEPTION OF CLIMATE FOR CHANGE IN THE WORKPLACE

Rose Marie Tondl, Ed. D.

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Adviser: Robert J. Florell

This study assessed the perceptions of Extension agents, administrators and board members toward the climate for change identified as the need for change, openness to change, potential for change and participation in change. Age, their sex, years on Extension staff, FTE group, Research and Extension Centers, years served on the Extension board, size of community and site where one resides were variables selected to test research hypotheses formulated for this study.

Theoretical concepts used to support this study were the Congruence Model of Organizational Behavior with a model identifying three problems of change based on the components of the organizational model.

The Climate for Change Survey, developed by the researcher was used to measure climate for change. The 63 statement survey was mailed and returned by 153 agents, 12 administrators and 237 board members.

Factor analysis of data collected retained 26 of the original statements relating to the four climate for change dimensions. Reliability analysis resulted in Cronbach's alpha of .9192 for the Climate for Change Survey. Face validity was established by five University of Nebraska professors representing evaluation, program development and administration.

Statistical analysis used to interpret the data was a multivariate analysis of variance using Wilks lambda with a univariate output to determine which of the dimensions of change were statistically significant.

Hypotheses testing showed a significant difference (1) among Extension agents, administrators and board members and the four climate for change dimensions (2) between agents and non-agent chairs and the need for change, openness to change and potential for change (3) between male and female agents and the need for change and openness to change (4) among agents from the five Research and Extension Centers and openness to change (5) among board members from the five Research and Extension Centers and the need for change and potential for change.

Recommendations included a replication of this study with another state Extension staff going through organizational changes using the Climate for Change Survey and further development of the Climate for Change Survey.

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CHAPTER I

Introduction

The Cooperative Extension Service is going through a period of transition and change. The Extension Committee on Organization and Policy (ECOP) Futures Task Force, appointed in November 1986, was charged to examine the need for organizational and structural changes and to review the federal, state and county partnership. "The task force concluded that the system must restate its mission, develop a vision for the future, and formulate plans for the necessary transition to achieve the desired change" (Oliver, 1987, p. 2). Although economics is one reason for accelerated change, a more important reason is that Extension must shift its focus from being an industrial-age organization to an information-age organization. Characteristics of the information-age organization include an interdisciplinary knowledge base, team accountability, a holistic system perspective on programming, proactive anticipation of issues, and a future oriented outlook (Patton, 1987). Van Horn, Heasley and Preston (1985) stated that the family and community changes that have occurred in society, present challenges unprecedented. "The solutions to these problems will be unprecedented and should be properly labeled experimentation. Any experimentation requires risk! Furthermore, holding onto the undemanding status quo will never lead to a vibrant, growing Extension Service" (Van Horn et al. p. 6).

When change is introduced into an organization, some form of human resistance usually occurs. Change creates an emotional turmoil and people will react differently for a number of different reasons.

People who perceive a change to be positive may feel a strong commitment to it, while people who perceive a change to be negative may resist it strongly. Between these bipolar responses, people's feelings and reactions will vary in intensity to accepting or rejecting change.

According to Burack and Torda (1979) resistance and acceptance are present in all reactions to change. Individuals who are positive about change feel they may gain something. Kirkpatrick (1985) and Carnall (1986) state people may gain security, authority, status/prestige, responsibility, self-satisfaction and a new challenge. Those individuals who resist feel they will lose something. Kirkpatrick (1985), Huse (1975), Carnall (1986) and Burack et al. (1979) have identified those losses to be in security, pride and satisfaction, freedom, responsibility, authority and status.

The organizational development literature indicates employee resistance to change has received much attention (Gardner, Dunham, Cummings, and Pierce, 1987). A number of theories have been suggested to explain why employees differ in their receptiveness to changes in their work environment. Gardner et al. (1987) identified such forces as lack of trust, "frozen" attitudes, values and/or beliefs, fear of unknown consequences and lack of involvement in the change process. However, White (1977) noted little research exists to support theories of differential reactions to work environment changes. A possible reason is because planned change is so complex and involves so many factors and relationships, that little agreement

exists about the important variables to study or key relationships to test.

Watson (1971) and Nadler (1981) state that individuals must be motivated to continue to perform in the face of change. People need to be unfrozen out of the state they are in to be receptive to change.

In the Nebraska Cooperative Extension Service, Extension county agents, specialists, administrators and Extension county board members are having to cope with two major changes in the organization's structure. The first change for Nebraska Extension is moving from single county program units to twenty-three multi-county program units. These multi-county program units were created by joining two or more counties together. This change means the crossing of county lines and bringing together Extension county agents and in some cases Extension county board members. Generally, Extension county staff work independently of other counties in meeting the needs of the people.

A second change affecting Nebraska Extension is a nation wide approach that involves moving from disciplinary programming to issue programming. Two national committees, the National Initiatives Coordinating Committee and the Futures Task Force have called for such programming. Issue based programming is based on eight national priority initiatives as established by a National Priorities Policy Task Force. Those initiatives of major concern for Nebraska were selected and have led to issue based programming emphasizing

interdisciplinary, problem-oriented teams to address critical issues of public concern.

In summary, these major changes involve team work not only by Extension agents, but by county board members as well. Previously, agents and board members have been responsible to their county and agents usually worked alone carrying out single disciplinary programs. Team work is essential and central to issues programming and to the development of multi-county program units. Team work appears to be more time consuming and demanding than working alone. Making issue programming work requires concerted thought, commitment and continual communication between Extension agents and between county board members from the different multi-county program units. Because of these demands, how issue based programs are organized, planned and delivered, needs to be consistent with the skills and interests of the Extension county agents in the various multi-county program units. The nature of these tasks needs to be congruent with the expertise of the agents. As change in the Cooperative Extension Service unfolds, resistance to work-related changes or acceptance of these changes has begun to occur.

Discussion of the Problem

The problem investigated in this research is how Extension agents, administrators and county board members feel about change, how open they are to it, what commitment they feel toward change, and whether they feel they have some influence on the changes that will affect them. What is the perception people have toward change when their job function and responsibilities are being altered or

redesigned?. The perceived climate for change in the Cooperative Extension Service has important implications for acceptance and resistance to change.

Much of the literature on change describes ways it can be created, how to use a change agent effectively, and how to follow models when implementing change. Little research has examined how people feel when they are experiencing a work-related change within an organization.

Turnbull et al. (1974) suggested resistance to educational change occurs when changes or innovations are made without prior assessment of the potential users' perceived need for change. Thus, this study addressed the perceived need for change in the Nebraska Cooperative Extension Service.

Purpose of the Study

The primary purpose of this study was to compare the differences in the perceptions of Extension county agents, administrators and county board members toward the climate for change. Specifically, the study addressed the climate for change dimensions which are the need for change, openness to change, potential for change and participation in change.

Theoretical Perspective

Nadler (1981) stated that implementing change means moving an organization from the current state to some desired future state. Beckhard and Harris as cited by Nadler (1981), argue that almost any major change, no matter what the content, can be thought of as a

transition. The period during which the movement occurs is transitional as noted by Beckhard and Harris (Figure 1).

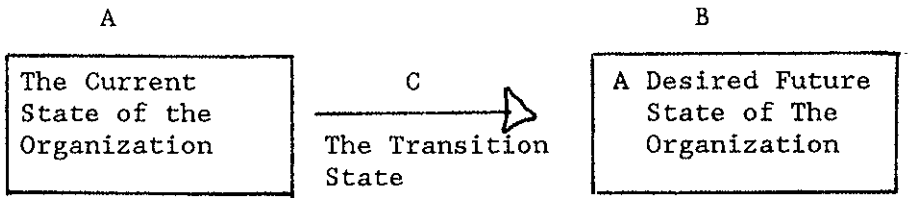

Figure 1 Organizational change as a transition state.

Note From "Managing Organizational Change: An Integrative Perspective" by David A. Nadler 1981, The Journal of Applied Behavioral Science, 17, 191-209.

The future state is how the organization is planned or envisioned and seen after the change. The period between A and B is the transition state or C. It is the transition state of changing behavior that is frustrating and difficult for individuals. This transition state, which is critical determines the quality of the future state.

According to Nadler (1981), organizational change has been effectively managed when:

1. the organization is moved from the current state to the future state.
2. the functioning of the organization in the future state works as planned.
3. the transition is accomplished without undue cost to the organization.
4. the transition is accomplished without undue cost to individual organizational members.

Effective management of change requires three steps: 1. assess the current state 2. design the future state and 3. implement or modify those changes during the transition period. It is in this third step that problems are encountered.

Nadler (1981) identifies three problems that must be dealt with when trying to implement change. They are resistance to change, control and power. Each of these problems is related to one of the components in the Congruence Model of Organizational Behavior as developed by Nadler and Tushman (1979). The model is structured around input, transformation and output of an open-systems model (Figure 2).

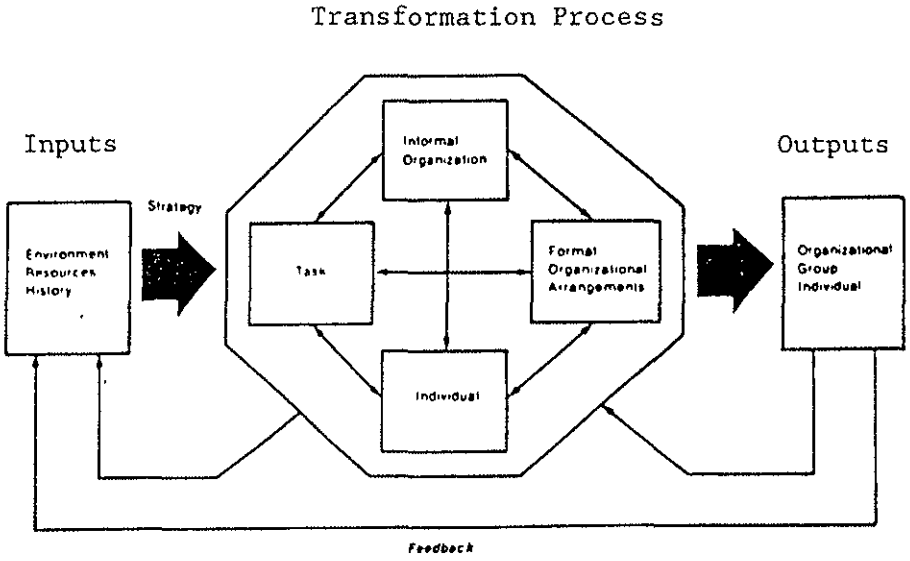

Figure 2. A congruence model of organizational behavior.

Note From "Managing Organizational Change: An Integrative Perspective" by David A. Nadler 1981, The Journal of Applied Behavioral Science, 17, 191-209.

The transformation process of the system is the interaction between four major components of the organizational system. They are:

1. the task of the organization or the work that must be performed.
2. the individuals who perform organizational tasks, but differ in knowledge and skills, needs or preferences, or perceptual biases.
3. the formal organizational arrangements which include the microstructure and macrostructure used by the organization to motivate and control behavior.
4. the informal organizational arrangements such as patterns of communication, values, and norms which characterize how the organization functions.

These components have a relationship with each other. Between each pair there is a relative degree of consistency or fit. The basic hypothesis of this model is that organizations will be most effective when their major components are congruent with each other.

Nalder's model as depicted in Figure 3 shows the problems in implementing change in relation to the components of the organizational model.

In the model that relates to the problem of resistance, there is usually some form of human resistance when an organization begins to introduce change. Individuals faced with change may be resistant for a variety of reasons. Resistance may be due to people needing a degree of stability or security, and change brings unknowns which can cause anxiety. Individuals may also sense a loss of autonomy of self-control and have their power threatened. Individual resistance must be overcome for successful implementation of change.

The problem of control in organizational arrangements is that most formal organizations operate in a stable state not in a

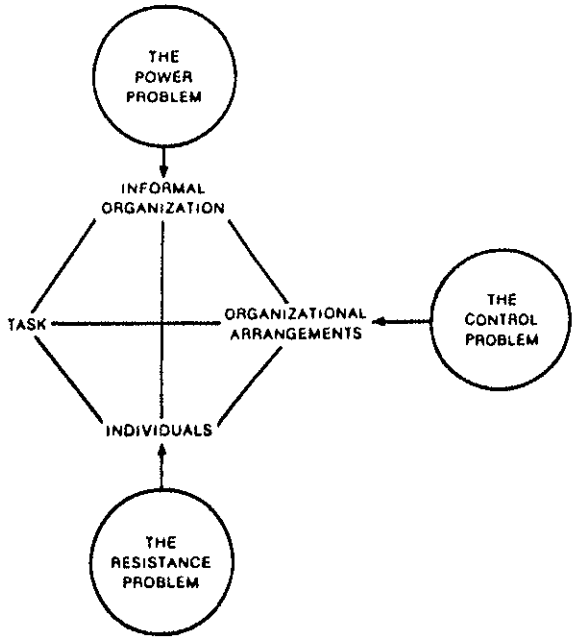

Figure 3 Problems of change in relation to the components of an organizational model.

Note From "Managing Organizational Change: An Integrative Perspective" by David A. Nadler 1981, The Journal of Applied Behavioral Science, 17, 191-209.

transition state. Any change disrupts the normal operation within an organization. As a result, the changes an organization experiences may cause the organization to lose the capacity to effectively coordinate the work being done.

An organization is a political system made up of several different individuals competing for power within the informal organization. As an organization makes any significant changes, the possibility of upsetting the balance of power exists. Individuals and groups will take some type of action based on their perception of how the change will affect their relative power position in the organization. In order to assess the current state or climate,

Zaltman and Duncan (1977) identified four important dimensions of climate for change. They are:

1) Need for Change which focuses on such issues as whether the organization is keeping up with the demands of society
2) Openness for Change which focuses on the openness or willingness of the organization to change
3) Potential for Change which focuses on the capabilities of the personnel to deal with change and whether there is a commitment to change
4) Participation in Change which focuses on the amount of involvement or influence others have on the changes being made

According to Zaltman and Duncan, resistance to change is likely to be greater when the need for change is low and openness to and potential for change is perceived as being low in the organization. If differences exist in an organization regarding climate for change, then problems during the attempted change can be expected.

An explanation of the resistance problem as it relates to the individual component in the Congruence Model of Organizational Behavior Model is based on the four concepts of climate for change (Figure 4).

The greater or more positive the perception of climate for change would be among groups, the less resistant and more willing people will be to change. If different groups of individuals in an organization differ in their perception of change, it would then become somewhat more difficult to implement change as there would be a greater resistance to change.

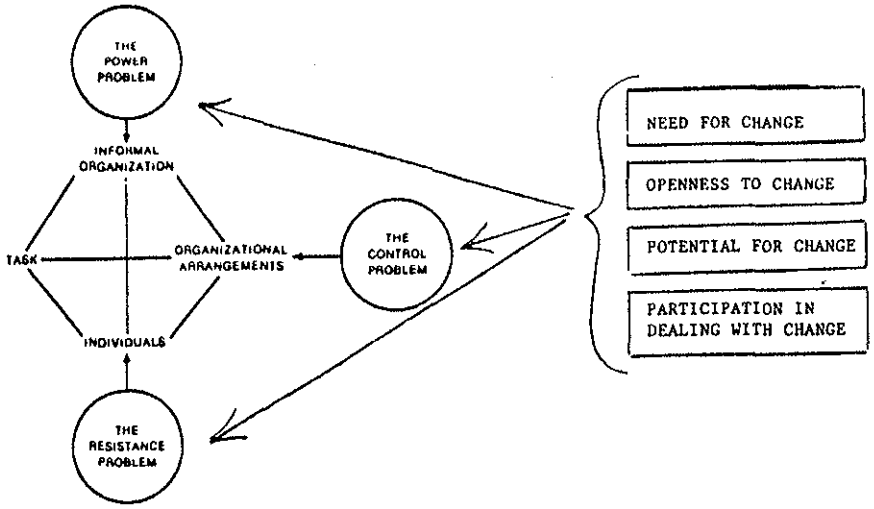

Figure 4 Problems of change in relation to the dimensions of climate for change.

In this study, as individuals differ in their perception of change, the less congruence or fit there will be among the four major components of the organizational system. Therefore this makes organizations less effective. Organizations will be most effective when individuals do not differ significantly in their perceptions of climate for change.

Research Questions

Based on the climate for change scores of the need for change, openness to change, potential for change and participation in change:

1. Are there differences among Extension county agents, administrators and county board members?
2. Are there differences between Extension county agent chairs and non-agent chairs?

3. Are there differences among Extension county agents belonging to different county FTE groups (1-1.9 FTE, 2-3.9 FTE, 4.0 FTE and over)?
4. Are there differences among Extension county agents and their years on staff in Extension?
5. Are there differences between male and female Extension county agents?
6. Are there differences among Extension county agents belonging to the different age ranges?
7. Are there differences among Extension county agents and the five Research and Extension Centers?
8. Are there differences among Extension county board members and the number of years served on the Extension county board?
9. Are there differences between male and female Extension county board members?
10. Are there differences among Extension county board members belonging to the different age ranges?
11. Are there differences among Extension county board members and the five Research and Extension Centers?
12. Are there differences among Extension county board members and the size of the community where they live?
13. Are there differences among Extension county board members and the site (town/city, rural-non farm and rural-farm) where Extension county board members reside?

Definitions of Terms

Climate for Change-The overall atmosphere of the work environment as perceived by those it directly or indirectly affects.

Need for change-People's perceptions of the necessity to alter the present structure of the organization.

Openness to change-The willingness as perceived by individuals to accept changes occurring within the organization.

Potential for change-The perceived commitment individuals have to deal with change so the altered structure in an organization can be implemented.

Participation in change-The willingness as perceived by individuals to be actively involved in the organization's restructuring process.

Extension County Agent-An agriculture, home economics or 4-H youth and development program leader in a County Extension office. Referred to as agent.

Extension County Agent Chair-An agriculture or home economics agent who has administrative leadership for management of a County Extension office or multi-county units called Extension Program Units.

Full Time Equivalent Group-(FTE) Extension agents are hired as full time employees or part time such as a .60 FTE. Each county varies as to the number of FTEs.

Extension Administrator-A person who has district or state administrative responsibilities. Referred to as administrator.

Extension County Board Member-An elected member from the local community who has responsibilities for directing the educational

programs in agriculture and home economics in the county. Referred to as board member.

Research and Extension Centers-Nebraska is divided into five Centers. These five Centers are known as the Panhandle Research and Extension Center (PH), West Central Research and Extension Center (WC), South Central Research and Extension Center (SC), Northeast Research and Extension Center (NE) and Southeast Research and Extension Center (SE). Referred to as Extension Centers.

Limitations of this Study

1. The study population was limited to Extension agents and administrators in the Nebraska Cooperative Extension Service and to those members serving on Extension county boards.
2. The small population of Nebraska Extension administrators in this study was limiting.
3. The data for this study consisted of self-reported perceptions of agents, administrators and board members which are subject to weaknesses in self-report data.
4. The conclusions drawn were restricted to the population studied.

Assumptions

1. Perceptions of climate for change can be measured using the Climate for Change Survey.
2. The Climate for Change Survey is an appropriate and useful instrument to measure the perception of climate for change.

Summary of Chapter I

The context of the problem addressed in this study was described

in Chapter I with emphasis on the changes occurring in Extension, positive and negative feeling related to change and that very little research on the perceived climate for change has been done. The purpose of this study was to compare perceived differences of agents, administrators and board members by addressing the climate for change dimensions of the need for change, openness to change, potential for change and participation in change. Variables used to compare differences included sex, age, years on staff in Extension, agent FTE group, Extension Centers, years served on the Extension Board, size of community and site where one resides. Accepting or resisting change has important implications for the success of implementing changes in the Nebraska Cooperative Extension Service.

Research relating to transition and change, organizational climate and change, resistance to change and effects of organizational change are reviewed in Chapter II. Chapter III describes the methodology followed in this study, the development of the Climate for Change Survey and the over all research design. Results of the instrument development, profile of respondents and hypotheses testing is found in Chapter IV. A discussion of the newly developed Climate for Change Survey and the results of the hypotheses testing is found in Chapter V. Chapter VI concludes with a summary of the research, conclusions from the study and recommendations for further research.

CHAPTER II

Review of Literature

This study was designed to provide data on the perceptions of the climate for change that individuals have when experiencing work related changes. The literature reviewed in this chapter focuses on the humanistic approach to organizational change. The emphasis is on (1) transition and change (2) organizational climate and change (3) resistance to change, and (4) effects of organizational change.

Introduction

Knowledge about the need for change is necessary for an organization's survival and potential growth (Tannenbaum and Hanna, 1985). New knowledge, varying economic conditions, pressures of competition, the evaluation of new cultural values and perspectives and a paradigm shift can all have an impact on organizations. According to Tannenbaum and Hanna, these and other factors impinge on the organization demanding adaptation, innovation, and even fundamental reorientation. Also, pressure to change comes from within the organization through structural reorganization or personnel shifts.

In the past much attention has been given to the theories of change, understanding the change process, and the technology of change. According to Tannenbaum et al. (1985), the attention has been primarily on the introduction of change. This includes diagnosising the present situation, making decisions concerning the

goals of the change effort and developing strategy for moving from the old to the new. Appropriate implementation then follows to make the necessary changes.

From these authors' perspective, little attention has been given to the working through of the needs of the human system to hold on to what has been and to avoid those feelings that changes can create. The need to hold on is a powerful force for individuals, groups, and organizations. Attention must be given to the feeling of holding on and dealing with it as a part of the total change process.

Tannebaum et al. (1985) pointed out that during a change process, attributes of a system are let go. When those attributes are near the core of the system, the process is referred to as a basic change. It is in the letting go of these basic changes when individuals face the unknown and express strong feelings such as fear, anger, and helplessness.

The effectiveness of any change system is dependent upon the responses of the individuals who are involved in the change. This means the change must be supported by the individual members of the system. Therefore, the needs of individuals to hold on and the processes for facilitating their giving up and moving on must be of central importance.

Transition and Change

For organizations to make successful changes, managers, administrators and/or leaders need to find ways to balance the need for change with the need for stability. Tichy and Devanna (1986) refer to organizational changes or transformation as occurring at

both the organizational and individual level. The leaders need to pull the organization into the future while providing emotional support for the individuals during the transition process.

At the organizational level, Tichy et al. (1986) identified three stages of transformation. First, the need for transformation, next the need for motivating a vision and third institutionalizing change.

On the individual level these authors referred to William Bridge's three phases of individual change. They involved endings, transition states and new beginnings. Individuals must work through these phases if they are going to complete a change process successfully.

Schein (1973) pointed out that some of the theories of change are based on the premise that change does not occur unless the individual is motivated and ready to change. This means the individual must perceive some need for change in him/herself, must be able to change and must perceive that the influencing person can facilitate change in a way that is acceptable to the individual.

When dealing with attitudes, Schein stated that the need for change is more likely to be perceived as a threat to an individual's sense of identity and to his/her status in the organization. Suggestions of the need for change threaten the stability of working relationships. The arousal of resistance is often expected so the individual can maintain his/her normal mode. It is important not to ignore the psychological resistance to change.

Kurt Lewin developed a change model which is based on a three

step procedure of unfreezing, moving or changing and refreezing. It is a process that occurs over time (Schein, 1973).

1. Unfreezing This occurs when a system which has been operating in a given pattern is disturbed. Forces act on the individual to upset his/her state of equilibrium by increasing the pressure to change or reduce resistance to change. New information may be introduced to show discrepancies.

2. Changing New directions and the process of learning new attitudes move to a different level. New values and behaviors are developed through identification, internalization or a change in structure.

3. Refreezing It is a period of stabilizing the new changes and a time to integrate changed attitudes and behaviors and establish a new state of equilibrium.

Zand and Sorensen (1975) used Lewin's theory as a framework to investigate successful and unsuccessful applications of management science. Hypotheses suggested that generally forces favorable to each phase would be positively correlated with success and forces unfavorable to each phase would be negatively correlated with success.

Management scientists were asked to recall a project in which they had participated. They were to select a project where they had either a very high or very low level of influence on the organization. With this project in mind they completed a questionnaire based on the three phases of Lewin's change process. The findings indicated that forces favorable to each phase were

positively correlated with success and forces unfavorable to each phase were negatively correlated with success. Forces affecting the success of change included management's recognition of the need for change, the openness of management about change difficulties, the participation of management in collecting data and choosing a solution and the involvement of top management.

Implications for different levels of management indicated that if perceptions are similar for change in the unfreezing phase, then little conflict will occur. If there are reservations and resentment during unfreezing, difficulties are likely to happen during the moving phase. Resistance is met when the need for change is not recognized. It is in the refreezing phase that positive feedback be given by the management scientists.

Bridges (1988) states that during organizational change, management is preoccupied with managing the technical, economic and staffing aspects. Managers do not know what to do with the psychological effects of change on people. When changes are planned and many people are disoriented, they are often left demoralized, self-absorbed and full of mistrust. Bridges goes on to say:

> We are surprised when we set out to improve productivity with a new technique, only to find that productivity falls because of the disruptions caused by its introduction. In the end, the very goals of the changes on which the organization's future depends are often threatened by the effects of the changes on the people who must carry them out. We encounter resistance to the changes, which slows down their implementation, increases their cost and

may in the end force them to be abandoned. (p. 7)

When introducing change into an organization, those directing the change need to be sensitive to those being affected by the change. What most people call resistance to change, Bridges refers to as resistance to transition. He sees transition as a gradual psychological process through which individuals and groups reorient themselves. This period of time allows for the opportunity to find meaning and to function in a changed situation.

According to Bridges, change starts with a new beginning and transition starts with an ending. People need to learn to let go of old attitudes and behaviors. It is during this period of transition when people feel up in the air, confused, and empty. He refers to this period of transition as the Neutral Zone.

Transition is seen as a three-phase process that leads to a new beginning (Figure 5). It begins with an ending, moves to the neutral zone, and culminates in a new beginning.

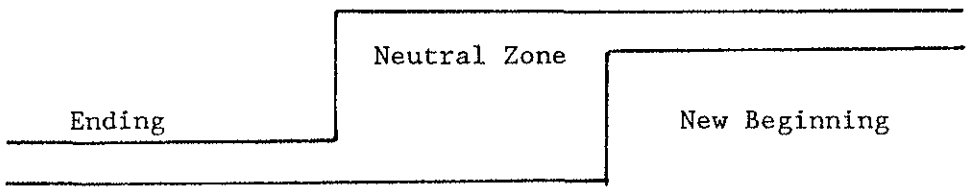

Figure 5. Phases of transition

Each individual experiences transition differently. It is important to understand how others experience transitions produced by changes and how they perceive the climate of those changes.

Five factors were identified by Bridges that affect one's perception of change. They are personal history of the individual,

cultural values, the temperament or natural style of individuals, gender and one's life phase. They all have an impact on the way an individual's personal worlds are created.

The steps of change developed respectively by Lewin and Bridges have some common characteristics with Nadler's model of organizational change as a transition state. The three steps can be interpreted with similar meanings as it relates to implementing change.

	Step 1	Step 2	Step 3
Nadler -	Current State	Transition	Future State
Lewin -	Unfreezing	Changing	Refreezing
Bridges -	Endings	Neutral Zone	New Beginnings

The first phase reflects a period of time in the organization when there is an alteration of the present state-an unstable state, a dissatisfaction, a loss of what was.

The second phase is a time of learning new responses, broadening perceptions, changing attitudes and behaviors, a feeling of confusion, and emptiness.

The last phase in these three models is the stabilizing and the intergrating of the changes.

The transition experience is predictable and quite normal according to Adams and Spencer (1988). During transition people may experience a phenomenon called "backing and forthing." This is a time when people find themselves alternating between feeling strong and optimistic about a change and feeling overwhelmed and helpless. Their stages of transition model is associated with a "morale curve"

to describe the shifts people experience in mood, moral and sense of self-worth. The dotted line in Figure 6 suggests that some people may not experience a "transition high," but instead decline in mood, morale and self-worth immediately.

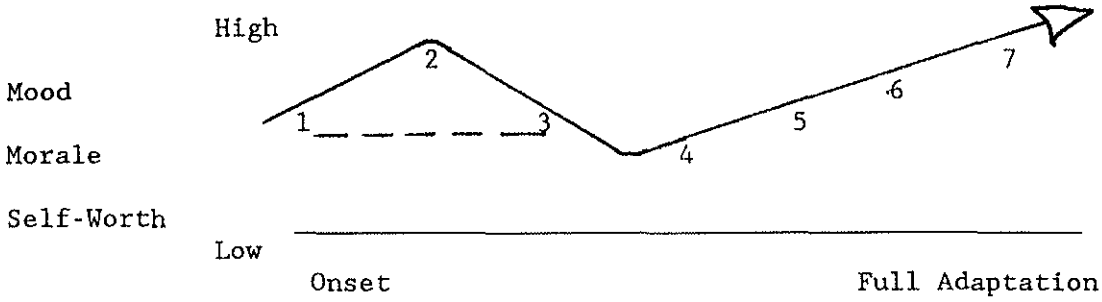

Figure 6. Stages of transition

Note From "People in Transition" by John D. Adams and Sabina a Spencer, Training & Development Journal, 61-63.

The stages of transition as described by Adams and Spencer are:

1. Destabilizing and losing focus-A time when things are unclear and feelings of unreality are likely
2. Minimizing the impact-A way of attempting to return to "business as usual" by reducing the impact of change
3. Questioning self-worth-The experiencing of powerlessness, lack of control over the situation and one's emotions
4. Letting go of the past-Adjusting to the new reality and consciously assuming responsibility for the future
5. Testing the new situation-Trying out new behaviors, developing new skills and growing in self-confidence
6. Searching for meaning-A period of reflection in gaining insight into how one deals with change

7. Integrating the experience-Adjusting to the new behaviors and being confident in the change

Barnett and Louderback (1971) stated that whenever an organization plans to undergo change, administrators must be aware of the effect change might have on staff. Not only must administrators analyze clientele needs, but they must be aware of the effect anticipated changes might have on the job satisfaction of the staff.

A study carried out by Barnett and Louderback was to determine if psychological and physiological/sociological factors were still operative as sources of satisfying and dissatisfying feelings after Extension workers had experienced three organizational changes. They concluded that the reasons Extension agents got satisfying feelings from their jobs and wanted to perform more effectively and efficiently in the wake of organizational change were due to:

1. The positive interest in achieving results in the job performed
2. Desire to be recognized within the organization for the job done
3. Maintaining positive relations with co-workers and supervisor

Organizational changes can and will create employee dissatisfaction if:

1. Organizational policy and administration aren't clearly understood
2. Changes in working conditions or job environment conflict with personal goals
3. Organizational changes reduce the employees's opportunity or ability to fulfill clientele expectations

Barnett et al. suggested that before introducing any organizational change, administrators should consider whether change will give employees an opportunity to assume greater responsibility, increase their opportunity for successful completion of the job, have a built-in mechanism for recognition and appreciation and have an opportunity for personal and professional growth.

Organizational Climate and Change

Organizational climate has been defined by a number of organizational theorists as identified by Tagiuri (1968) including Litwin and Stringer and Evan. A definition for organizational climate has been defined as "A set of measurable properties of the work environment perceived directly or indirectly by the people who live and work in this environment and... assumed to influence their motivation and behavior" (Litwin and Stringer, 1968). According to Tagiuri (1968), "Climate is the relatively enduring quality of the total environment that is experienced by the occupants, influences their behavior and can be described in terms of the values of a particular set of characteristics or attributes of the environment" (p. 27). Evan's approach is that it "is a multidimensional perception of the essential attributes or character of an organizational system" (Tagiuri, 1968, p. 110). To get perceptual responses from individuals, according to Evan, they need to be oriented with specific facts, then have the opportunity to express one's opinion as to how those facts are perceived, not whether they like them or not.

Hellriegel and Slocum (1979) identified others that represent an

adaptation of a definition of organizational climate. A definition set forth by Beer, Campbell, Dachler and Schneider is as follows: "Organizational climate refers to a set of attributes which can be perceived about a particular organization and/or its subsystems, and that may be induced from the way that organization and/or its subsystems deal with their members and environment" (p. 289).

When talking about climate, Altman and Hodgetts (1979) related it to such factors "... as communication flow, decision making practices, concern for people, the influence that individuals have at different organizational levels, adequate technology in the organization and the degree of motivation that exists among the personnel" (p. 287).

Two sets of factors have been identified when organizational climate is examined. They are overt and covert factors. The overt or opened factors include hierarchy, financial resources, goals of the organization, skills and abilities of the personnel, performance standards and efficiency measures. The covert or hidden factors of organizational climate include attitudes, feelings, values, norms, interaction supportiveness and satisfaction (Altman and Hodgetts, 1979).

Forehand (1968) suggested that organizational climate involves three sets of variables. They are environmental, personal and outcome variables. Environmental variables are size and structure of the organization which are external to the organizational member. Personal variables are aptitudes, attitudes and motives which the member brings to the job situation. Outcome variables are satisfaction, job motivation, and productivity which are determined

by environmental and personal variables. From the definitions of organizational climate, climate can be seen as an interaction between environmental and personal variables.

When change is introduced into an organization the climate of that organization is affected. An organization considering making changes in the redesigning of jobs may encounter resistance from its employees. If change is to be introduced, it must be done in such a way that the employees understand why the change is being made and how it will be helpful to the organization.

A systems model of organizations developed by William Evan (Tagiuri, 1968) consists of three parts. They are the input organization-set which provides resources to the focal organization, the focal organization which is the deliverer of goods and services and the output organization-set who are those that receive the goods and services. A feedback process loops back from the output organization-set to the focal organization, then to the input organization-set or directly from the output to the input organization-set. Following are assumptions based on this systems model of organizations to organizational climate:

1. Members as well as non-members have perceptions of the climate of the focal organization, the one delivering the goods and services.
2. Members perceive the climate differently from non-members.
3. Perceptions of organizational climate have behavioral consequences for the focal organization.
4. Organizational members performing different roles tend to have different perceptions of the climate.

5. Members of different organizational sub-units have different perceptions of the climate.

A hypothesis based on the systems model proposed by Evan (1968) concerning the problem of changing an organizational climate is: if members of the focal organization perceive the climate as more favorable than members from the organization-set, there will be a reduced motivation to change and a lower rate of innovation. The opposite would be: if the climate perceived by members of the focal organization is less favorable than that perceived by members of the organization-set, there will be a higher rate of innovation.

Numerous studies on the measures of organizational climate have used structured perception questionnaires. Altman and Hodgetts (1979) identified and analyzed 31 studies utilizing the organizational climate construct. Climate was used as an independent variable, intervening variable and as a dependent variable.

When used as an independent variable, organizational climate was related to job satisfaction in terms of interpersonal relation, group cohesiveness and task-involvement. Other studies found a relationship between job performance and organizational climate. In an innovative climate, greater productivity was expected of people with skills and attitudes associated with independence of thought and action and the ability to be productive in free, unstructured situations. Some researchers found that a particular climate was associated with high performance.

As a dependent variable, perceptions of climate vary among employees at different levels in the managerial hierarchy.

Significant differences were reported in job satisfaction among managers depending upon their level within the organization. Using human relations training programs to change organizational climate, research studies concluded that a training program can induce changes in a participant's perception of his/her organization's climate.

Climate was used as an intervening variable when the independent variables were human relations training programs, leadership styles, or managers' personality needs. The dependent variable was job performance or satisfaction. Climate as an intervening variable yielded inconsistent results.

A climate for change study was investigated in three police departments by Duncan (1972). He identified four different dimensions of change which were need for change, openness to change, potential for change and participation in dealing with change. The results indicated a fairly strong degree of association among the four different dimensions of climate for change. The need for change was negatively associated with openness to change, potential to change and participation in change. Therefore, the greater the need for change as perceived by police personnel, the less departmental personnel perceived there to be an openness to change, a potential to change and a participation in change attempts and decisions. The reverse was also true, the greater the perceived openness to change, potential for change, and participation in change, the lower the perceived need for change. When these four dimensions of climate for change were compared to different organizational levels within the

police departments, there were significant differences across the three levels on openness to change and participation in change. The higher the level in the police department, the more open they were to change and the more they perceived participation in change. The lower level policemen were less open to change and had more potential resistance to change.

Resistance to Change

When an organization puts forth effort to create change, there is usually some form of human resistance (Krotter and Schlesinger, 1983). It is an important step to assess who might resist the change. These authors indicated that change itself creates emotional turmoil and people will have varying reactions to it for a number of different reasons. Not all people share the same beliefs about change so they will be affected differently. Those affected by change will need to learn new patterns of behavior.

Watson (1971) wrote that perceived resistance moves through a cycle. The first stage is when only a few people take change seriously. In the second stage in which the change movement grows, pro and con forces emerge. Conflict and showdown develop between those who favor change and those who do not in the third stage. In the fourth stage, supporters are found for the change and in the fifth stage very few adversaries are left to resist change.

Resistance is seen both within the individual personality and in forces within the social system. There are several personal traits that create a resistance. Watson (1971) identified homeostasis (a stabilizing force), habit, primacy, selective perception and

retention, dependence, feelings of helplessness, superego, insecurity and regression and deprivation or anxiety as forces of resistance as they operate within the individual personality. Those resistant forces operating within social systems include conformity to norms, systemic and cultural coherence, the sacrosanct (things held sacred), the rejection of outsiders, affluence of others, hierarchy and restricted communication.

Watson's observations on change are based on generalizations from the following questions. Who brings the change? Resistance will be less if:

1. the persons involved feel the project is their own.
2. the project has support from the top officials of the system.

What kind of change? Resistance will be less if:

1. the participants see change as reducing rather than increasing present burdens.
2. the projects agree with values and ideals held by the participants.
3. the program offers new experiences which interest participants.
4. the participants feel their autonomy and security are not threatened.

How is change best done? Resistance will be less if:

1. the participants have been involved in the efforts leading to agree on the problem and feel its importance.
2. the project is adopted by consensus of the group.
3. the proponents empathize with opponents, recognize valid objections and take steps to reduce fears.
4. the provision is made for feedback of perceptions of the project.

5. the participants experience acceptance, support, trust and confidence with others.
6. the project is kept open to revision and reconsideration.

In what climate should change take place? Readiness for change becomes a characteristic of certain individuals, groups, and organizations. They look to the future, anticipate and see the ideal as possible.

Goodwin Watson reported ways of overcoming resistance to change. His suggestions, as re-enforced by Lippitt (1969), were to:

1. involve employees in planning for change
2. provide accurate and complete information
3. give employees a chance to air their objections
4. always take group norms and habits into account
5. make only essential changes
6. provide adequate motivation

Research has identified some of the typical reasons for resistance to change. Lippitt (1969) listed them as being:

1. the purpose of the change is not made clear
2. persons affected by the change are not involved in the planning
3. when an appeal for change is based on personal reasons
4. when the habit patterns of the work group are ignored
5. when there is poor communication regarding the change
6. when there is fear of failure
7. when excessive work pressure is involved
8. when anxiety over job security is not relieved

9. when "vested interest" of the individual or a sub-unit of the organization is involved
10. when there is a lack of respect and trust in the initiator
11. when there is satisfaction with the status quo

Lawrence (1954) pointed out that to deal with change is to get the people involved in making the change. Employees do not resist technical change, but social change--the change in their human relationships. Resistance is usually created because of certain attitudes and blind spots which staff have because of their preoccupation with the technical aspects of new ideas. It is the change in human relationships that generally accompanies technical change.

According to Lawrence, resistance to change occurs because of self-preoccupation, and those initiating change do not take into account the social aspects of the change. It is the social aspect that determines the presence or absence of resistance. Resistance to change also revolves around certain kinds of attitudes that individuals develop about their jobs and ideas for introducing change. Lawrence stated that if resistance does appear, it is a warning that something is wrong. This is the time for staff to listen carefully and find out what the trouble is.

Reitz (1977) stated that the causes of resistance may be rooted in the experiences or past reinforcement history of those facing change. Change means uncertainty. There is the uncertainty of abandoning the satisfaction with what is, to the uncertainty of will one be as satisfied after the change.

Resistance to change is not a flaw in worker personality, but a psychologically sound behavioral tendency based on past experiences. Reitz identified areas in which resistance to change is most likely to occur. They include changes that affect job content, cause fear, disrupt established work routines and reduce authority or freedom of acting.

One of the first studies on the phenomenon of resistance to change was done by Coch and French (1947). They said resistance is primarily a motivational problem. Their conclusion was that resistance to change could be reduced by getting the people involved to participate in the change.

Oreel (1981) examined resistance to work-related change within a major federal agency which was undergoing the restructuring and consolidation of its organization. The purpose of the study was to develop a better understanding of employee attitudes toward work-related change and factors that influence levels of resistance or acceptance to the change process. The results of the study indicated that respondents who saw some impact of the organizational change on their work-related environment were significantly more anxious about the effects than respondents who saw very little or no impact.

Research by Williams (1982), identified and verified the causes of resistance to planned organizational change thought to be operative during the implementation of a management development and training program. The researcher concluded that employees tend to resist planned organizational change when various conditions exist.

Those conditions identified were when employees were not involved in making the decision to implement the change, ineffective communication about the change, work loads were increased, and not enough adequate financial support was provided for the change. Williams also concluded that the greatest resistance occurred most often during the action planning stage of change. The next greatest resistance happened during the implementation phase.

When an organization resists change, either actively or passively, as stated by Zaltman and Duncan (1977), a message is being communicated. The organization is telling something about who it is, its attitude toward outsiders and change, its resources and limitations, its important internal norms and values, and its relationship to other systems in the environment. If people are to change they need to be motivated to change. By creating dissatisfaction with the current state, the greater the motivation to change, the less resistance there is to change. Building in the participation of personnel in the change process tends to reduce resistance to change. A built-in reward system tends to motivate people to behave in ways they perceive as leading to desired outcomes. (Vroom, 1964; Lawler, 1973).

Patchen (1965) conducted a study to assess employee resistance to change in the co-operative program at the Tennessee Valley Authority (TVA). An index was constructed based on four questions of change, and it was correlated with scores indicating the vigor of the co-operative program. The data showed a strong association between the vigor of a co-operative program and acceptance of change in that program. Acceptance of change was also strongly related to the

percentage of employees who served on any committee of the co-operative program, to perceptions of the consideration given to suggestions, and to the index of participation through the co-operative program. Increased acceptance of change was found in units with a vigorous, well-publicized co-operative program which was due to joint labor-management decision making.

An attempt to identify some reasons for employee resistance prior to the implementation of job enrichment was studied by Collins and Raubolt (1975). Individuals from a large manufacturing firm were asked to indicate their degree of resistance to a job enrichment program in their department. The questions were based on economic, social and psychological need requirements. The findings indicated that the majority of older workers (45 and older) with fewer years to retirement (9 or less), more years of service (30 or over) and years at position (10 or more) were resistant. The younger workers with more years to retirement, fewer years of service and years at position were non-resistant. Collins and Raubolt concluded that younger workers may see job enrichment as a means of achieving self-actualized needs earlier in life and are therefore non-resistant. The younger worker was also likely to be very cooperative in initiating a job enrichment program.

Organizational Change

Organizational change has been approached from different strategies. As shown in Figure 7, Leavitt (1965) has categorized approaches to change into four interacting variables which he terms task, technology, people and structure.

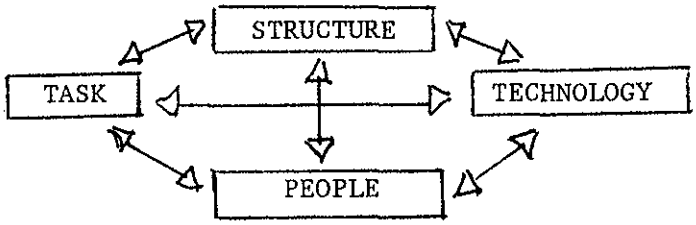

Figure 7. Approaches to organizational change

Note From "Applied Organizational Change in Industry: Structural, Technological and Humanistic Approaches" by H. Leavitt 1965, Handbook on Organizations, 1114-1171.

The task variable refers to the primary output variable, while people, structure and technology are seen as strategies for organizational change. The people approach to organizational change tries to change organizations by first influencing behaviors, attitudes, values, and norms of the organization's members. Historically, the people approach to change has been manipulative. More recently it has focused on the relationship between the changer and changee.

As reported by Leavitt, research over the past several years has been heavily people oriented with the emphasis on re-education. The new label is now referred to as organizational development. As defined by Bennis...It is an educational strategy which has been adopted to bring about a planned organizational change (1969).

For management to introduce change successfully, Mealiea (1978) stated that it "...depends on both the quality of the change program and the degree of acceptance by those individuals who will implement the change. However, managers frequently fail to recognize the importance of employee acceptance and as a result increase the

probability of employee resistance" (p. 212). Mealiea identified a set of potential needs critical to the employee's perception of personal success within the work environment. They were the need to know how one fits into the total system, to predict what one will face in the future, to interact with others and the need to have some control over the happenings in one's environment.

Gardner, Dunham, Cummings and Pierce (1987) focused their study on employee reactions to organizational change. They looked at employee's reaction to change in their work environment, their work units, and outside work factors and how they perceived and reacted to actual changes in their work environment. According to Gardner et al. (1987) employees who focus on the work environment are likely to sense changes in the environment, concentrate on those changes and react to them.

A scale to measure employee expectations of changeability in organizational diagnosis of a mental health hospital was developed by Pond III, Armenakis and Green (1984). This study looked at the perceptions of employees regarding whether or not an organization could make improvements in certain climate facets. The survey measured organizational climate, addressing employee expectation of the changeability of a particular issue, the perceived importance of a particular issue and the satisfaction of an individual with an issue. The findings in this study suggested that employees with high job satisfaction had different expectations about the organizational ability to change than employees with low satisfaction. Highly satisfied employees saw unfavorable climate conditions as under the

control of the organization since they felt the organization responded to their needs.

Brooks (1976) investigated the effects of anticipated personal inputs required by change and personal outcomes emphasized by management proposing the change on individual receptivity to organizational change. He concluded that employees' receptivity to a proposed organizational change varies inversely with estimates of additional personal input that the change will require. Employees were not anxious to risk more stress, unsatisfactory relations with others and additional uncertainty in order to support an organizational change.

A study by Porras and Hoffer (1986) identified common behavior change characteristics of successful change efforts. After interviewing 42 of the top scholars and practitioners in the field of organization development, those participants nearly unanimously reported a set of behavior changes common to all successful organizational change processes. Those identified were communicating openly, collaborating, taking responsibility, maintaining a shared vision, solving problems effectively, respecting/supporting, processing/facilitating interactions, inquiring and experimenting.

Yien (1970) explored some of the social psychological factors that might account for member acceptance of planned change within a formal organization. It was found that female workers were no less receptive to change than male workers. The more employees perceived themselves as a group, the greater was the amount of their acceptance of change. When employee's influence on decision making increased,

acceptance of planned change also increased. However, the longer employees remained in the organization, the less they welcomed change.

Trumbo (1961) explored individual and group correlates of attitudes toward work-related change. The results indicated that within an organization, female employees were less receptive to change than male employees. Length of service, and age were not related significantly to attitudes toward change and employees within work groups were relatively more homogeneous in their attitudes toward change than among groups. The findings also supported that less favorable attitudes toward change indicate that change poses a threat to the satisfaction of social needs through informal social structure, and readiness to change was related to employee needs for variety, status and self-expression at work.

A study of managers' attitudes toward change by Kirton and Mulligan (1973) noted that managers with more seniority felt less threatened by promotion policy change. Their results also suggested that managers with confidence in their ability to do their jobs were more likely to welcome novelty in a situation.

Summary

This review of literature focused on change and transition, organizational climate and change, resistance to change and effects of organizational change. As change is introduced into an organization, it elicits an emotional reaction in people. For some persons, change is stimulating, exciting and challenging, whereas others find it anxiety provoking, risk taking and threatening to security.

Models of change have been developed by Nadler (1981), Lewin (1947), Bridges (1988) and Adams and Spencer (1988). These models view change from a people approach. Whether it is a three step or a seven step process, the individual assesses the change situation, perceives and interrupts the information in light of his/her personal capacities, forms attitudes related to the change situation and responds positively or negatively toward the change. Although individuals respond to change differently, the attitudes relating to change are products of the individual's perception toward change.

A normal reaction to change is resistance. If resistance is to be lowered, people in an organization will need to understand the reasons for change, be open to change, see the potential for change and participate in the change effort.

From the review of literature cited above, few studies have investigated how people perceive change when they are in the transition state of change, that is moving from the current state to some future state. When different groups need to work together to make a smooth transitional change, there needs to be agreement among the groups in their perceptions of the climate for change.

The present study, therefore, was to assess the perceptions of an organization's climate for change. As the Extension organization introduces change, where do differences occur, if any, and are the differences positive or negative toward change?

CHAPTER III

Methods and Procedures

The following topics are discussed in this chapter: the development of the research questions, hypotheses, development of the research instrument, the validity of the instrument, sample population, pretesting, distribution of the research instrument, and data analysis.

Development of the Research Questions

The research questions found in Chapter I were developed based on the review of literature concerning the four dimensions of the climate for change. Specifically they were the need for change, openness to change, potential for change and participation in change.

Sex, and age of agents and board members, length of service of agents, agent's full time equivalent group (FTE), number of years on the Extension county board, size of the community and site where board members reside, and the Extension Research and Extension Centers were selected as variables. They were the bases for forming the research questions to examine the differences in the perception of climate for change with agents, administrators and board members.

HYPOTHESES

The following null hypotheses were formulated based on Climate for Change Survey scores:

1. There is no significant difference among Extension agents, administrators and board members?

2. There is no significant difference between agent chairs and non-agent chairs?

3. There is no significant difference among agents belonging to different county FTE groups.

4. There is no significant difference among agents and years on staff in Extension.

5. There is no significant difference between male and female agents.

6. There is no significant difference among agents belonging to the different age ranges.

7. There is no significant difference among agents and the five Extension Centers.

8. There is no significant difference among board members and number of years served on the Extension county board.

9. There is no significant difference between male and female board members.

10. There is no significant difference among board members belonging to the different age ranges.

11. There is no significant difference among board members and the five Extension Centers.

12. There is no significant difference among county board members and the size of their community.

13. There is no significant difference among board members and the site (town/city, rural-non farm and rural-farm) where board members reside.

Development of the Instrument

The researcher developed a survey to measure perceptions of the climate for change. Four climate for change dimensions were identified adopting Duncan's Climate for Change Scale (1972). Those dimensions were Need for Change, Openness to Change, Potential for Change and Participation in Change. Since the researcher was unable to obtain a copy of Duncan's instrument, the Climate For Change Survey was developed.

Several research studies on organizational change, organizational climate and resistance to change were reviewed and used as guides in developing the statements. Sample statements from Duncan's Climate for Change Scale (1972) as reviewed in the literature were also used to guide the researcher in the development of the instrument.

Statements were written to reflect the two changes occurring in the Nebraska Cooperative Extension Service. They were moving from single county program units to multi-county program units and developing programs based on national priority issues rather than from a disciplinary approach.

The survey consisted of 63 statements as generated by the researcher (Appendix E). Fourteen statements reflected the need for change. Ten of those were positive statements and four were negative. Openness to change had 21 statements. Nine were positive and 11 were negative. Sixteen statements were developed for potential for change. Of those 16 statements, 10 were positive and six were negative. Participation in change had twelve statements. Seven were positive and five were negative.

This instrument was developed into a mailed survey using a Likert scale as the research method for gathering data. This method provided for efficiency of cost and time in researching the selected population.

The Climate for Change Survey was composed of two parts as discussed below:

1. Part one of the survey focused on the climate for change dimensions. The participant was asked to respond to his/her level of agreement to statements relating to the four different dimensions. The level of agreement scale ranged from STRONGLY DISAGREE-1 point, DISAGREE-2 points, NEITHER AGREE OR DISAGREE-3 points, AGREE-4 points and STRONGLY AGREE-5 points. Statements written in a negative form were scored in reverse.
2. Part two of the survey was concerned with demographic factors of sex and age of agents and board members, years on Extension staff, number of years on the Extension county board, and size of the community and site where board members reside. Additional demographic information for agents was obtained from their identification number. Information from this source indicated if the agent was an agent chair, their Extension Center, the FTE group of the agent and if the agent was in agriculture, home economics, communications or 4-H youth and development. The Extension Centers for board members were also identified.

Validity of the Instrument

Validity is a measure which indicates the degree to which a test or scale measures what it is suppose to measure. The Climate for

Change Survey was constructed and developed on a logical basis. The four dimensions making up the climate for change were defined in Chapter I and used as a guide in developing the statements for the need for change, openness to change, potential for change and participation in change. Sixty three statements were written to reflect each concept's definition. Face validity for the statements were validated by five University of Nebraska faculty representing the areas of evaluation, program development, and administration.

Pretesting the Instrument

Pretesting the survey was conducted prior to the research study in order to identify any problems with the clarification and construction of the survey. Seven Extension state specialists and six board members not in the study were contacted to participate in the pretest study. Extension specialists were used for pretesting the survey since they have similar responsibilities related to issue based programming. Seven Extension specialists and two board members completed and returned the survey. Corrections were made to clarify the wording of some of the climate for change statements.

Population and Sample

The population for this study was composed of 163 agents and 12 administrators in the Nebraska Cooperative Extension Service who were identified in the Personnel Directory of the Nebraska Cooperative Extension Service. There were 656 board members whose names were in the 1989 list of Extension county boards. This list came from the

administrative office of the Nebraska Cooperative Extension Service-University of Nebraska.

The researcher used a stratified random sample by population of communities using the Nunnery and Kimbrough (1971) formula to select 300 board members. One third of the board members came from each of the towns based on population from 4,000 and under, 4,000 to 50,000 and over 50,000. The total population of the Nebraska agents in home economics, agriculture, communications and 4-H Youth and Development and the administrators were contacted to participate in this study.

Distribution of the Research Instrument

A letter stating the purpose of the study and a sample survey was sent to the Human Subjects Commission, University of Nebraska Medical Center, Omaha, Nebraska. Approval was received prior to the distribution of the survey (Appendix A).

A cover letter and survey was sent on May 15, 1989 to 163 agents, 12 administrators and 300 board members who were selected to be a part of this study. The cover letter included the purpose of the study, a brief statement concerning the confidentiality of the participants, the length of time necessary to complete the survey, and the importance of the participant to the study (Appendix B). The survey was designed so that when completed the respondent could insert it into a postage paid envelope. An identification number on each survey was used for demographic information and to help identify nonresponders. Numbers one through 163 were assigned to agents, 164-175 were assigned to administrators, board members were assigned

numbers from 176-475. All respondents were asked to complete the survey by May 26, 1989.

A follow-up postcard was sent to the nonresponders ten days following the initial mailing of the survey (Appendix C). They were reminded to complete the survey and return it. Another letter and survey were sent to those nonresponders who did not respond to the postcard mailing ten days after that survey was mailed (Appendix D).

Data Analysis

Surveys were collected, data coded, and then entered into an IBM-PC computer. Statistical analyses were performed using the SAS computer software program and the Statistical Package for the Social Sciences (SPSSX). The research questions were tested in the null hypothesis.

Data analysis involved the following approach. A factor analysis was used to determine which statements from the survey would be acceptable.

According to Borg and Gall (1983), a multivariate analysis of variance is used as a statistical technique when determining whether several groups differ on more than one dependent variable. Wilks lambda is then used to test for statistical significance of the difference between groups. If a significant F is obtained, an analysis of variance is then employed on each dependent variable to determine which of these variables are statistically significant.

For this study a multivariate analysis of variance using Wilks lambda with a univariate output was used to determine the differences among scores for the independent variables-agents, administrators,

and board members and the four dependent variables-perception of climate for change dimensions.

CHAPTER IV

Results

The intent of this chapter is to present the results of the study. A factor analysis was used to determine which statements from the survey would be acceptable for data analysis. A reliability check was obtained for the set of statements used. Frequency distributions were calculated to provide a descriptive profile of the sample using the demographic variables of sex, age, years on staff, years on the county board, Extension Center location, FTE group, position, size of community and site of home. The summary of the findings for each research hypothesis is provided through the use of tables and a narrative explaining each finding.

Factor Analysis

The Climate for Change Survey developed by the researcher consisted of 63 statements. Since four factors were identified in the survey, a factor analysis was used to identify if the statements grouped according to need, openness, potential and participation.

A four factor solution was checked using a principal axis factoring with iterations and a varimax rotation. The four factors solution accounted for 45.5 percent of the variance and converged in five iterations.

In the varimax rotation the statements representing the four climate for change dimensions did not load on the receptive four factors. The loading appeared in a different pattern. Statements referring to single and multi-county program units tended to load on

the need factor. The majority of the negative statements tended to load on the participation factor. The statements loading on the potential factor appeared to relate to cooperation with change. The openness to change statements appeared to be related to Extension changes.

For further analysis, a factor analysis called a procrustean rotation was used. According to Mulaik (1972) a rotation is used in a procrustean transformation to obtain factors having properties as much as possible like those of a preconceived set of factors. The 63 statements were grouped into the four preconceived factor solution using principal axis factoring with iterations. The four factor solution accounted for 45.5 percent of the variance and converged in five iterations.

In the procrustes rotation, those statements that double or triple loaded or loaded on a different factor were eliminated. After those statements were eliminated another procrustes rotation was repeated with the remaining statements. The four factor solution with 26 statements representing the four dimensions was accepted according to the factors of need, openness, potential and participation (Appendix F).

Twenty six statements were used for analyzing data pertaining to the perception of the four climate for change dimensions. They included eight statements for need for change, five for openness to change, 10 for potential for change and three statements for participation in change (Appendix G). A copy of one computer program to run a multivariate analysis of variance was included (Appendix H).

Reliability of Instrument

Reliability is the level of internal consistency or stability of the measuring instrument. A reliable instrument is dependable and predictable.

A reliability for evaluating the 26 climate for change statements was analyzed using a coefficient alpha called Cronbach's alpha on the SPSSX program.

The reliability analysis on the 26 statements yielded a Cronbach's alpha of .9192. Therefore, the reliability of the Climate for Change Survey was considered to be a reliable survey and relatively free of error variance.

Profile of Respondents

Out of 475 surveys mailed, 402 were returned or 84% of the total sample. The sample contained 163 agents, all 12 administrators, and 300 board members. The percent of return for each group was agents-94% (N = 153) administrators-100 % (N = 12), and board members-79% (N = 237) (Table 1).

In the survey, agents were asked to indicate if they were male or female, their age range and the number of years on the Extension staff. The number of years on staff was collapsed into four categories for the purposes of this study.

Fifty-four percent of the agents were male and 46 percent were female. The ages of the agents ranged from 7 percent under 30 years, 37 percent from 30-39 years, 35 percent from 40-49 years, 17 percent from 50-59 years and 4 percent over 60 years. Reviewing the sexes separately by age, 7 percent of the male and female agents were under

Table 1

Number of Extension Agents, Administrators and Board Member Respondents

Variable	N	%
Agents	153	93.8
Administrators	12	100
Board Members	237	79
Total	402	

30 years, 30 percent of the male and 32 percent of the female agents were between the ages of 30-39 years, 35 percent of the male and 34 percent of the female agents were between the ages of 40-49 years, 23 percent of the male and 10 percent of the female agents were between the ages of 50-59 years and 4 percent of both male and female agents were over 60 years.

Thirty-one percent of the male and female agents were on staff between 1 and 5 years, 24 percent between 6 to 10 years, 31 percent between 11 to 20 years, and 14 percent have been on staff for over 20 years.

Reviewing the sexes by years on staff, 26 percent of the male and 37 percent of the female agents have been on staff from one to five years, 20 percent of the male and 30 percent of the female agents have been on staff from six to ten years, 34 percent of the male and 27 percent of the female agents have been on staff from 11 to 20 years and 20 percent of the male and 7 percent of the female agents have been on staff for over 20 years.

Additional demographic information for agents was obtained from their identification number. Information from this source included agent chair or non-agent chair, Extension Center location, FTE group and Extension position.

Forty-one percent of the agents were agent chairs and 59 percent were non-agent chairs. By Extension Centers there were 9 percent from the PH Center, 10 percent from WC Center, 22 percent from SC Center, 15 percent from NE Center and 33 percent from the SE Center. Thirty-two percent of the agents were grouped between 1-1.9 FTE, 42 percent were between 2-3.9 FTE and 26 percent were over 4 FTE. Agents were categorized by the position they hold. Fifty-two percent were in agriculture, 45 percent in home economics, 3 percent in 4-H youth and development and less than 1 percent in communications (Table 2).

In the survey board members were asked to indicate if they were male or female, their age range, number of years served on the Extension board, size of their community and where they reside. The number of years served on the board was collapsed into three categories for the purposes of this study.

The ages of the board members ranged from 5 percent under 30 years, 34 percent from 30-39 years, 37 percent from 40-49 years, 16 percent from 50-59 years and 8 percent over 60 years. Looking at the sexes by age, 5 percent of both male and female board members were under 30 years, 42 percent of the male and 28 percent of the female board members were between the ages of 30-39 years, 36 percent of the male and 39 percent of the female board members were between the ages

Table 2

Population Description of Extension Agents by Sex, Age, Years on Staff, Agent Chair, Extension Center, FTE and Staff Position

Variable		N	%
Sex			
Male		82	53.5
Female		71	46.4
	Total	153	99.9
Age			
Under 30		11	7.1
30-39		57	37.2
40-49		53	34.6
50-59		26	16.9
Over 60		6	3.9
	Total	153	99.7
Years on Staff			
1 to 5 years		47	30.7
6 to 10 years		37	24.1
11 to 20 years		47	30.7
over 20 years		22	14.3
	Total	153	99.8
Agents			
Chairs		63	41.1
Non-Chairs		90	58.8
	Total	153	99.9

Table 2 Continued

Variable		N	%
Extension Centers			
PH Center		14	9.1
WC Center		31	20.2
SC Center		34	22.2
NE Center		23	15.0
SE Center		51	33.3
	Total	153	99.8
Full Time Equivalent Group (FTE)			
1-1.9 FTE		49	32.0
2-3.9 FTE		64	41.8
over 4 FTE		40	26.1
	Total	153	99.9
Staff Position			
Agriculture		79	51.6
Home Economics		69	45.0
4-H Youth and Development		4	2.6
Communications		1	.6
	Total	153	99.8

of 40-49 years, 13 percent of the male and 20 percent of the female board members were between the ages of 50-59 years and 8 percent of both male and female board members were over 60 years.

Seventy-five percent of all board members served on the Extension board between one and three years, 21 percent between 4 and

6 years and 4 percent served over 6 years. Sixty-two percent of the board members live on a farm, 11 percent live in a rural area non-farm and 27 percent live in a town or city. Fifty-one percent of the board members live in a community that is less than 4,000 in population, 44 percent live in a community that is between 4,000 and 50,000 in population and 5 percent live in a community that is over a population of 50,000.

The Extension Centers where board members live was additional demographic information obtained from their identification number. As shown in Table 3, thirteen percent were from the PH Center, 20 percent from WC Center, 18 percent from SC Center, 15 percent from NE Center and 34 percent were from the SE Center.

Findings for Null Hypotheses

The following are results of each of the 13 hypotheses, followed by discussion.

Hypothesis 1. There is no significant difference in climate for change scores among Extension agents, administrators and board members.

As shown in Table 4, a significant difference was found in the climate for change scores in the need for change, openness to change, potential for change and participation in change among the agents, administrators and board members. Therefore, the null hypothesis was rejected.

The administrators were significantly more positive in their perception toward the need for change, potential for change and participation in change than the agents or board members. The agents

Table 3

Population Description of Extension County Board Members by Sex, Age, Years on the Board, Site, Extension Centers and Size of Community

Variable		N	%
Sex			
Male		108	45.5
Female		129	54.4
	Total	237	99.9
Age			
Under 30		11	4.6
30-39		80	33.7
40-49		87	36.7
50-59		39	16.4
Over 60		20	8.4
	Total	237	99.8
Years on Board			
1 to 3 years		181	76.3
4 to 6 years		50	21.0
over 6 years		6	2.5
	Total	237	99.8
Site			
Farm		147	62.0
Rural Non-farm		27	11.3
Town/City		63	26.5
	Total	237	99.8

Table 3 Continued

Variable		N	%
Extension Centers			
PH Center		30	12.6
WC Center		47	19.8
SC Center		43	18.1
NE Center		36	15.1
SE Center		81	34.1
	Total	237	99.8
Size of Community			
Less than 4,000		120	51.0
4,000 to 50,000		104	44.0
Over 50,000		13	5.0
	Total	237	99.8

were significantly more positive in their perception of these three change dimensions than were board members. Therefore the board members were the most resistant in their perception toward these change dimensions.

The administrators and the agents were significantly different in their perception of openness to change from the board members. The administrators and agents were more positive toward openness to change than were board members. The board members were the most resistant in their perception toward openness to change.

Table 4

Differences in Climate for Change Scores among Extension Agents, Administrators and Board Members

Group	Need*	Open*	Potential*	Participation*
Agents	.30[a]	.09[a]	.09[a]	.50[a]
Administrators	1.37[b]	.53[a]	1.36[b]	1.23[b]
Board Members	-.27[c]	-.09[b]	-.12[c]	-.39[c]

Wilks' Criterion P < .0001

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 2 There is no significant difference in climate for change scores between Extension agent chairs and non-agent chairs.

As shown in Table 5, a significant difference was found between agent chairs and non-agent chairs and their climate for change scores in the need for change, openness to change, and potential for change. Therefore, the null hypothesis was rejected for the need for change, openness to change and potential for change and accepted for participation in change.

The non-agent chairs were significantly more positive in their perception toward the need for change, openness to change and potential for change than agent chairs. The agent chairs were more resistant in their perception toward these three change dimensions.

Hypothesis 3 There is no significant difference in climate for change scores among Extension agents belonging to different county FTE groups.

Table 5

Differences in Climate for Change Scores between Agent Chairs and Non-Agent Chairs

Agents	Need*	Open*	Potential*	Participation
Chairs	.01[a]	-.09[a] -	.09[a]	.45[a]
Non-Chairs	.51[b]	.23[b]	.22[b]	.54[a]

Wilks' Criterion P < .0001

*Column means followed by different superscripts are significantly different at .05 percent level using Fisher's Protected LSD.

No significant difference was found in climate for change scores among agents belonging to different county FTE groups (Table 6). Thus, the null hypothesis was accepted.

Table 6

Differences in Climate for Change Scores of Extension County Agents by County FTE Groups

County FTEs	Need*	Open	Potential	Participation
1-1.9	.16[a]	-.11[a]	.03[a]	.43[a]
2-3.9	.29[a]	.22[a]	-.008[a]	.49[a]
4 +	.51[a]	.14[a]	.33[a]	.61[a]

Wilks' Criterion P <.13

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 4 There is no significant difference in climate for change scores among agents and years on staff in Extension.

No significant difference was found in climate for change scores among agents and their years on staff in Extension (Table 7).

Thus, the null hypothesis was accepted.

Table 7

Differences in Climate for Change Scores of Extension County Agents by Years on Staff

Years	Need*	Open	Potential	Participation
1-5 years	.32[a]	-.04[a]	.15[a]	.57[a]
6-10	.54[a]	.29[a]	.15[a]	.64[a]
11-20	.30[a]	.19[a]	.16[a]	.49[a]
Over 20	-.14[a]	-.17[a]	-.31[a]	.14[a]

Wilks' Criterion P < .29

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 5 There is no significant difference in climate for change scores between male and female Extension agents.

A significant difference was found in climate for change scores in the need for change, openness to change and participation in change between male and female agents (Table 8). Therefore, the null hypothesis was rejected for need for change, openness to change and participation in change and accepted for potential for change.

The female agents were significantly more positive in their perception toward the need for change, openness to change and participation in change. The male agents tended to be more resistant in their perception toward these three change dimensions.

Hypothesis 6 There is no significant difference in climate for change scores among Extension agents belonging to the different age ranges.

Table 8

Differences in Climate for Change Scores of Extension County Agents by Sex

Sex	Need*	Open*	Potential	Participation*
Males	-.04[a]	-.05[a]	-.01[a]	.31[a]
Females	.70[b]	.27[b]	.21[a]	.72[b]

Wilks' Criterion P < .0001

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

No significant difference was found in climate for change scores among agents belonging to the different age ranges (Table 9). Therefore, the null hypothesis was accepted.

Table 9

Differences in Climate for Change Scores of Extension County Agents by Age

Age	Need*	Open	Potential	Participation
Under 30	-.17[a]	-.49[a]	-.28[a]	.22[a]
30-39	.51[a]	.14[a]	.11[a]	.70[a]
40-49	.32[a]	.16[a]	.15[a]	.50[a]
50-59	.08[a]	.05[a]	.04[a]	.30[a]
Over 60	-.05[a]	.19[a]	.24[a]	-.02[a]

Wilks' Criterion P < .24

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 7 There is no significant difference in climate for

change scores among Extension county agents and the five Extension Centers.

As shown in Table 10, a significant difference was found in the climate for change score of openness to change among agents and the five Extension Centers. Thus the null hypothesis was rejected for openness to change and accepted for need for change, potential for change and participation in change.

The SE Center agents were significantly different in their perceived openness to change than were the agents from the PH, SC, WC, and NE Centers. Agents in the SE Center were more positive in their perception toward openness to change than the agents from the other four Centers. The NE Center agents were the most resistant to openness to change, although the WC agents also showed a resistant to openness to change.

Table 10

Differences in Climate for Change Scores of Extension County Agents by Extension Centers

Centers	Need	Open*	Potential	Participation
PH Center	-.13[a]	.05[a]	-.22[a]	.36[a]
WC Center	.15[a]	-.07[b]	-.15[a]	.26[a]
SC Center	.34[a]	.009[b]	.16[a]	.56[a]
NE Center	.27[a]	-.29[b]	-.05[a]	.72[a]
SE Center	.52[a]	.45[a]	.36[a]	.56[a]

Wilks' Criterion $P < .01$

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 8 There is no significant difference in climate for change scores among Extension county board members and the number of years served on the Extension county board.

No significant difference was found in climate for change scores among board members and number of years members served on the Extension county board (Table 11). Therefore, the null hypothesis was accepted.

Table 11

Differences in Climate for Change Scores of Extension County Board Members by Years Served on the Extension Board

Years on Board	Need*	Open	Potential	Participation
1-3	-.24[a]	-.14[a]	-.13[a]	-.38[a]
4-6	-.35[a]	.04[a]	-.10[a]	-.48[a]
Over 6	-.53[a]	.26[a]	-.21[a]	-.29[a]

Wilks' Criterion P < .33

*Columns means followed by different superscripts are significantly different at .05 level using Fisher's Protected LSD.

Hypothesis 9 There is no significant difference in climate for change scores between male and female Extension county board members.

No significant difference was found in climate for change scores between male and female board members (Table 12). Therefore, the null hypothesis was accepted.

Hypothesis 10 There is no significant difference in climate for change scores among Extension county board members belonging to the different age ranges.

No significant difference was found in climate for change scores

among board members belonging to the different age ranges (Table 13). Thus, the null hypothesis was accepted.

Table 12

Differences in Climate for Change Scores of the Extension County Board Members by Sex

Sex	Need*	Open	Potential	Participation
Male	-.17[a]	-.11[a]	-.09[a]	-.36[a]
Female	-.35[a]	-.06[a]	-.15[a]	-.42[a]

Wilks' Criterion P < .44

*Column means followed by different superscripts are significantly different at .05 level using Fisher's Protected LSD.

Table 13

Differences in Climate for Change Scores of Extension County Board Members by Age

Age	Need*	Open	Potential	Participation
Under 30	-.50[a]	.25[a]	-.47[a]	-.65[a]
30-39	-.17[a]	-.12[a]	-.17[a]	-.40[a]
40-49	-.25[a]	-.12[a]	-.17[a]	-.35[a]
50-59	-.39[a]	-.04[a]	.01[a]	-.45[a]
Over 60	-.34[a]	-.12[a]	.18[a]	-.29[a]

Wilks' Criterion P <.11

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 11 There is no significant difference in climate for change scores among Extension county board members and the five Extension Centers.

As shown in Table 14, a significant difference was found in climate for change scores in the need for change, and potential for change among board members and the five Extension Centers. Therefore, the null hypothesis was rejected for the need for change and potential for change and accepted for openness to change and participation in change.

The PH Center board members were significantly different in their perception toward need for change than board members from SE Center. The board members from the WC Center were significantly different in the need for change than board members from the SC, NE and SE Centers. The SE Center board members were significantly different and more positive in their perception toward the need for change than board members from the other four centers. The board members from the other four centers were resistant in their perception toward the need for change. However, the WC Center board members were the most resistant.

The board members from the PH Center were significantly different in their perception of the potential for change than board members from the WC Center and the SE Center. The WC Center board members were significantly different in their perception of the potential for change than board members from the SC, NE and SE Centers. The SE Center board members were the most positive in the potential for change than the other four centers. The board members from these other four centers were more resistant. However, the WC Center board members were the most resistant.

Table 14

Differences in Climate for Change Scores of County Board Members by Extension Centers

Centers	Need*	Open	Potential*	Participation
PH Center	-.38[a]	-.27[a]	-.26[a]	-.39[a]
WC Center	-.72[a]	-.13[a]	-.67[b]	-.60[a]
SC Center	-.25[b]	-.02[a]	-.06[a]	-.29[a]
NE Center	-.27[c]	-.19[a]	-.10[a]	-.46[a]
SE Center	.04[d]	.01[a]	.20[c]	-.30[a]

Wilks' Criterion P < .0001

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Hypothesis 12 There is no significant difference in climate for change scores among Extension county board members and the size of their community.

As shown in Table 15, there was no significant difference in climate for change scores among board members and the size of their community. Therefore, the null hypothesis was accepted.

Hypothesis 13 There is no significant difference in climate for change scores among Extension county board members and the site (farm, rural non-farm and town/city) where board members reside.

No significant difference was found in climate for change scores among board members and the site (farm, rural non-farm and town/city) where they reside (Table 16). Therefore, the null hypothesis was accepted.

Table 15

Differences in Climate for Change Scores of Extension County Board Members by Size of Community

Community Size	Need*	Open	Potential	Participation
Less than 4,000	-.35[a]	-.09[a]	-.20[a]	-.42[a]
4,000-50,000	-.25[a]	-.12[a]	-.09[a]	-.43[a]
Over 50,0000	.40[a]	.24[a]	.31[a]	.09[a]

Wilks' Criterion P< .11

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Table 16

Differences in Climate for Change Scores of Extension County Board Members by Site

Site	Need*	Open	Potential	Participation
Farm	-.31[a]	-.10[a]	-.14[a]	-.37[a]
Rural-Non-farm	-.33[a]	.04[a]	-.22[a]	.60[a]
Town/City	-.14[a]	-.11[a]	-.06[a]	-.37[a]

Wilks' Criterion P< .45

*Column means followed by different superscripts are significantly different at the .05 level using Fisher's Protected LSD.

Summary of Results

Agents, administrators and board members were studied to determine if there was a difference in the perceived climate for change dimensions. Those dimensions were the need for change, openness to change, potential for change and participation in change. Variables used to determine differences with agents were age, sex, county FTE group, chair and non-chair agents, Extension Centers and

years on staff. Variables used to determine differences with board members were sex, age, Extension Centers, years on the board, size of community and site where board members reside.

Thirteen hypotheses were analyzed. The five hypotheses found to be significant with the climate for change dimensions were the three Extensions groups, agent chairs, their sex and Extension Centers of agents, and Extension Centers of board members. Of these five hypotheses, only one hypothesis was significantly different in all four climate for change dimensions as shown in the chart.

Eight hypotheses that were not significant included the climate for change dimensions and agents' county FTE group, age and years on the Extension staff. For board members it was years served on the Extension board, their sex, age, size of community and site where they reside.

	Need	Open	Potential	Participation
1. Group	*	*	*	*
2. Agent Chairs	*	*	*	-
3. FTE Groups	-	-	-	-
4. Agents Years on Staff	-	-	-	-
5. Male/Female Agents	*	*	-	*
6. Agents Age	-	-	-	-
7. Agents' Extension Centers	-	*	-	-
8. Years on County Board	-	-	-	-
9. Male/Female Board Members	-	-	-	-
10. Board Members Age	-	-	-	-
11. Board Members' Extension Centers	*	-	*	-
12. Size of Community	-	-	-	-
13. Site	-	-	-	-

*Climate for change dimensions that were significant

CHAPTER V

Discussion

This study was conducted to compare the differences in the perceptions of Extension agents, administrators and board members toward climate for change dimensions. Those dimensions were the need for change, openness to change, potential for change and participation in change. An instrument was developed to measure the participants level of agreement to 63 statements relating to the four dimensions of change.

This chapter includes a discussion of the climate for change survey and the testing of hypotheses.

Discussion of Climate for Change Survey

The Climate for Change Survey as developed by the researcher consisted of 63 statements. The statements were composed of items that related to the need for change, openness to change, potential for change and participation in change. To determine if the statements were in fact reflecting each dimension of change, a factor analysis using a varimax rotation was employed. Statements for each dimension of change did not load on the respective factors, but loaded in a different pattern. Further analysis of using a varimax rotation and the loading pattern of the 63 climate for change statements needs to be investigated.

Another factor analysis by a procrustean transformation was used because of the four preconceived set of factors. This type of rotation attempts to obtain factors having properties similar to the

preconceived factors. Through the elimination of those statements that did not load on the appropriate factors, a final set of 26 statements made up the Climate for Change Survey. Eight statements were identified for the need for change, five for openness to change, ten for potential for change and three for participation in change.

Discussion of Hypotheses Testing

Five significant findings resulted from the testing of the hypotheses of this study. Those findings relating to the climate for change dimensions were the three Extension groups, agent and non-agent chairs, male and female agents, and Extension Centers of agents and board members.

Extension Groups

Among the three Extension groups studied, the findings indicated there was a greater acceptance as perceived by the administrators toward the need for change, openness to change, potential for change and participation in change than by agents or board members. An explanation of this result is that administrators may be less affected by the change than agents or board members as they represent the leadership which are initiating the changes. Agents on the other hand, were more positive toward change than the board members, but not as positive as the administrators. It is the agents who must deal with the multi-county programs as well as develop issue based programming. Agents may not be as positive toward change because according to Watson (1971), there will be more resistance by those who see change as increasing rather than reducing present

loads. Agents may also feel their autonomy and security are threatened as well as losing a sense of power with their county. Board members may anticipate some loss of county control due to the change to multi-county program units.

Since administrators show the strongest tendency toward accepting changes in the Extension organization, administrators will need to try and create favorable attitudes toward change for both the agents and board members. It is in the "letting go" during the transition period that administrators can help the others adjust to the new reality and assume responsibility for the future.

Agent Chairs and Non-Agent Chairs

The findings suggest that non-agent chairs were more open to change and were more willing to deal with change than agent chairs. Since agent chairs assume administrative leadership in management of a county office, they may be less positive toward change because of changes in their security, a loss of autonomy, a threat to their power in the county or there may be satisfaction with the status quo.

Sex

The findings of this study suggest that female agents were more positive toward the need for change, were more open to change and were more committed to participating in change than male agents. The findings in this study were not in agreement with Trumbo (1961). He stated that female employees attitudes toward a work related change were less receptive to change than male employees. Trumbo noted less favorable attitudes among female employees may indicate change is

perceived as threatening to the social aspects of the job which is something women rate more important than men. Yien (1970) reported from her study that female workers were no less receptive to change than male workers.

Beginning in the early sixties, the home economics agents have worked across county lines to a degree. Therefore, some of the changes proposed do not represent the magnitude of change that it may represent to males.

Those agents who perceived a resistance to the need for change were agent chairs and male agents. Since only 11 percent of the agent chairs are female, it would interesting to test if male agents chairs are more resistant to the need for change.

Since the administrators exhibited the most positive need for change, they should consider giving greater thought to assist male agents, especially the male agent chair to see a need for change.

Since the women were more positive in the need for change and were more open to change, they could be encouraged to provide leadership during work related changes. It could be useful for administrators to work with the women agents in the development of multi-county program units and to assist in carrying out issue based programming.

Extension Centers

The data in this study indicated the SE Center agents as being more open to change than agents from the PH, the SC, the WC and the NE Extension Centers. The agents least open to change were located in the NE and WC Extension Centers.

The majority of the population of the state is located in the the Southeast Research and Extension Center which brings together a different blend of rural and urban populations. This means there is a higher proportion of urban to rural population in the SE Center as compared to the population proportions in the other four Centers. Because of this population difference, more people may generate more varied ideas for change and more change may be experienced, thus making change less threatening.

The office for the SE Center is located on the University campus bringing them in closer contact with the Extension administrative offices. The two administrators in the SE Center consist of one male director and one female assistant director which are not found in the other four Centers. These differences may be some of the reasons why agents are more willing to deal with change.

Since administrators were open to change, those administrators from the SE Center may have provided open communication among the SE agents and created less resistance by bridging the ending to the new beginnings of change. As Bridges (1988) has indicated, those directing change need to be sensitive to those being affected by change and help people reorient themselves during the period of transition.

Multi-county program units means more traveling to conduct issue based programs. Probably a reason why the agents from the WC and NE Centers were seen as not being as open to the changes in Extension is because more traveling means less time in their home county offices.

The findings from this study suggest board members differed among the Extension Centers in their perceived need for change. The board members from the SE Center were the only ones who had a positive perception. They were positive toward the need for change and the potential for change because again like the agents, they reside in this blend of a higher proportion of urban and rural population and may not feel threatened by change and are more willing to accept and deal with change.

The board members from the other Extension Centers were resistant to these two climate for change dimensions, however it was the WC board members that were the most resist to change. Perhaps these board members feel a stronger responsibility to their county and the traveling that agents must do is time consuming and reduces time away from their offices.

This study would indicate the SE Extension Center agents and board members would have greater success in dealing with the changing structure of Extension and implementing issue based programming. Since this Extension Center was the most open to change, perhaps they could be used as a model to assist other Extension Centers in becoming open to the changes occurring in Extension.

Summary of Chapter Five

In this chapter the results were interpreted and discussed in terms of Extension agents, administrators and board members in their perceptions of the climate for change. In the next chapter, a summary is presented, conclusions of this research are outlined and recommendations are made.

CHAPTER VI

Summary, Conclusions and Recommendations

Purpose of Study

The research problem in this study was to compare the differences in the perceptions of Extension agents, administrators and board members toward climate for change dimensions. Those dimensions were the need for change, openness to change, potential for change and participation in change. Sex, age, years on staff in Extension, agent FTE group, Extension Centers, years served on the Extension board, size of community and site where one resides were variables selected to analyze and determine differences for agents and board members.

Population and Sample

The total population of Nebraska Extension agents and administrators was used in this study. A stratified random sample by size of community was used for the sample of board members. A total of 402 subjects participated in this study. This included 153 agents, 12 administrators and 237 board members. The rate of return was 84.6 percent for the sample studied. From each group, there was a return rate of 94 percent for the agents, 100 percent for administrators and 79 percent for board members.

Data Analysis

The Statistical Analysis System (SAS) was used to obtain a multivariate analysis of variance, with Wilks lambda using a

univariate output in testing the hypotheses. The Statistical Packages for the Social Sciences (SPSSX) was used for generation of coefficients of correlation for estimating reliability of the Climate for Change Survey.

Development of Instrument

The Climate for Change Survey was developed by the researcher. From the 63 statements developed, a factor analysis using a Procrustes Rotation identified 26 statements that were used for data analysis. Eight statements were used for need for change, five for openness to change, ten for potential for change and three for participation in change. The statements were placed on a five point scale ranging from one, "strongly disagree" to five, "strongly agree".

Reliability

A reliability check was computed on the 26 climate for change statements. The resulting Cronbach's Alpha was .9192 making the revised Climate for Change Survey highly acceptable.

Validity

The validity of the Climate for Change Survey was addressed by five University of Nebraska faculty representing the areas of evaluation, program development and administration. They checked statements representing the four dimensions of change against the definitions of the change dimensions.

Conclusions

The hypotheses were used to draw the following conclusions from the findings of this study:

1. Administrators were more positive toward the climate for change dimensions than agents or board members. The agents were not as resistant to change as board members. The group most resistant to change were board members.

2. Non-agent chairs perceived a greater need for change, were more open to change and were more willing to deal with change than agent chairs.

3. The female agents were more positive toward the need for change, were more open to change and were more committed to participating in change than the male agents. The male agents were the most resistant toward these climate for change dimensions.

4. Agents from the SE Extension Center were more open to change than agents from the other four Extension Centers. The agents from the NE and WC Centers were the most resistant to openness to change.

5. Board members from the SE Center were more positive toward the need for change and the potential for change than board members from the other four Extension Centers. The board members from the WC Center were the most resistant toward these climate for change dimensions.

Significant differences in the data were not found relating to the remaining eight hypotheses. Those related to agents FTE group, years on staff, age of agents and board members, years on the

Extension board, size of community where board members live and site where board members reside.

Recommendations

1. The present research could be replicated in other states to determine if there is a difference in climate for change dimensions among other Extension agents, administrators and board members.

2. A study is recommended to further develop the Climate for Change Survey using the four climate for change dimensions.

3. Further refinement of the Climate for Change Survey with additional tests of validity and reliability through varimax rotation factor analysis studies should be undertaken.

4. A study is recommended to determine why female agents are more positive toward change than male agents.

5. A study to determine how the transition state of change affects accepting or rejecting change in the Extension workplace is recommended.

6. A study could be conducted to determine how the Research and Extension Centers differ in implementing change in the workplace.

7. A study could focus on identifying the causes of resistance to change in the Extension workplace.

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APPENDIX A

Institutional Review Board Approval Form

University of Nebraska Medical Center

The University of Nebraska Institutional Review Board For the Protection of Human Subjects

Office of the Executive Secretary, IRB
5017 Conkling Hall
University of Nebraska Medical Center
42nd & Dewey Avenue
Omaha, NE 68105-1065
(402) 559-6463

April 28, 1989

Rose Marie Tondl
Textiles, Clothing and Design
212 Home Ec Bld
UNL 0802

IRB # 418-89

TITLE OF PROPOSAL: The Perception of Climate for Change in the Workplace

Dear Ms. Tondl:

I have reviewed your Exemption Information Form for the above-mentioned research project. According to the Information provided this proposal is exempt from IRB review under 45 CFR 46:101B 3 .

It is understood that an acceptable standard of confidentiality of data will be maintained.

Sincerely,

Ernest D. Prentice, Ph.D.
Executive Secretary

EDP/lmc

APPENDIX B

Example of Cover Letter

Cooperative Extension
University of Nebraska - Lincoln
Institute of Agriculture and Natural Resources

Office of the Dean and Director
211 Agricultural Hall
Lincoln, NE 68583-0703
(402) 472-2966
FAX (402) 472-2759

May 15, 1989

Dear Extension Agent,

This survey is designed to obtain information about the climate for change in the Cooperative Extension Service. The results of this study will be used to learn about the current perceptions of people when going through a change process.

The Cooperative Extension Service is changing its structure to more effectively meet the needs of the community. One change is from single county program units to multi-county program units. The other change is Extension's approach from subject matter programming to including issue based programming as it relates to the Nebraska priority initiatives.

In subject matter programming, problems are selected by existing subjects or disciplines in light of current structures and resources. The resources are primarily limited to existing subject matter specialties.

In issues based programming, issues are based on matters of wide public concern and will come from throughout the University and other organizations. Subject matter specialists who can work together are essential to issue based programming.

Since change affects people in different ways, we are interested in knowing how you perceive the climate for change in the Cooperative Extension Service. The purpose of this study will be to compare the differences in the climate for change perceptions of extension agents, extension administrators and county extension board members.

This survey can be completed in about fifteen minutes. Return the survey by May 26, 1989 in the enclosed postage-paid envelope.

The small identification number on the upper corner of the survey form will be used to monitor the return of the survey. It will be cut off upon receipt of the completed survey to insure your responses will be kept confidential. Only statistical summaries will ever be reported.

We thank you for your willingess to cooperate in this study and hope that you find the survey interesting.

Sincerely,

Leo Lucas

Dr. Leo Lucas
Dean and Director of Extension

Rose Marie Tondl

Rose Marie Tondl
Clothing Specialist and
Project Director
(402) 472-2914

APPENDIX C

Postcard

HELLO,

About ten days ago you received a Climate For Change Survey. It is very important to me if you would participate in this survey. I would appreciate it if you would take fifteen minutes from your busy schedule to respond to the statements. Please return it in the post-paid envelope that was provided for you **as soon as possible.**

Thank you very much!

Sincerely,

Rose Marie Tondl

Rose Marie Tondl, Clothing Specialist
and Project Director
(402) 472-2914

APPENDIX D

Follow-up Letter

Cooperative Extension Service
Institute of Agriculture and Natural Resources
University of Nebraska–Lincoln

Dean & Director
214 Agricultural Hall
Lincoln, NE 68583-0703
(402) 472-2966

June 14, 1989

Dear County Extension Board Member,

A survey for the Climate for Change was sent to a random sample of county board members. Enclosed is another copy if you have lost or misplaced yours. I would appreciate it if you would take the time to complete the survey. Your opinion is important. Please return it as soon as possible.

Thank you for your cooperation.

Sincerely,

Rose Marie Tondl

Rose Marie Tondl, Project Director
Extension Clothing Specialist
(402) 472-2914

JM

APPENDIX E

Climate for Change Survey

CLIMATE FOR CHANGE SURVEY

Changes being made within the Cooperative Extension Service affect people in different ways. Please indicate how you perceive the climate for change by responding to the following statements. Some statements are similiar, but are asked in different ways.

It is important that you answer each question frankly and honestly. There are no right or wrong answers. You are being asked to agree or disagree with a number of statements. Your responses will be kept confidential.

Instructions:
The responses are: (1) Strongly Disagree, (2) Disagree, (3) Neither Agree or Disagree, (4) Agree, and (5) Strongly Agree. Please circle the appropriate number by each response.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. To keep upwith societal changes, Extension must change.	1	2	3	4	5
2. The changes taking place will improve Extension programming.	1	2	3	4	5
3. I favor the development of multi-county program units in Nebraska .	1	2	3	4	5
4. I look forward to working on changes to improve how Extension operates.	1	2	3	4	5
5. Changes in Extension will create more problems than it solves.	1	2	3	4	5
6. I support the work that needs to be done to implement changes in Extension.	1	2	3	4	5
7. I see no need to change the way Extension has been operating in the past.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
8. Changes in Extension's organization will make little difference in improving program effectiveness.	1	2	3	4	5
9. The change from single county program units to multi-county program units will make Extension work more satisfying.	1	2	3	4	5
10. I support the focus of Extension programming on issues critical to the economic, social, and environmental concerns of Nebraskans.	1	2	3	4	5
11. I am open-minded to the changing structure in Extension.	1	2	3	4	5
12. The changes taking place in Extension are creating additional work.	1	2	3	4	5
13. Organizational changes in Extension will improve the Extension system.	1	2	3	4	5
14. I am personally committed to work through any problems associated with change in Extension's organization.	1	2	3	4	5
15. Working with priority issues will strengthen the Extension system.	1	2	3	4	5
16. It is quite easy to adjust to changes occurring in Extension.	1	2	3	4	5
17. Changes in Extension's organization create programming confusion.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
18. My involvement in team work is necessary to move toward issue based programming.	1	2	3	4	5
19. I feel I'm tolerant of the changes taking place in Extension.	1	2	3	4	5
20. I prefer the change in Extension from single county program units to multi-county program units.	1	2	3	4	5
21. I am unsure about the organizational changes taking place in Extension.	1	2	3	4	5
22. It is unnecessary to change to issue based programming to meet people's needs.	1	2	3	4	5
23. I favor organizational change as a way to keep Extension strong.	1	2	3	4	5
24. Altering my job responsibilities may be necessary for Extension's future.	1	2	3	4	5
25. I look forward to improving the effectiveness of Extension.	1	2	3	4	5
26. Program effectiveness will decrease as Extension changes to multi-county program units.	1	2	3	4	5
27. I am powerless in influencing the direction in which Extension is changing.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
28. I find it difficult to spend my time providing input into the changes that Extension is making.	1	2	3	4	5
29. I am actively participating in the changes occurring in Extension.	1	2	3	4	5
30. I think changing to issue based programming will make Extension proactive.	1	2	3	4	5
31. I am willing to work with others to make change happen in Extension.	1	2	3	4	5
32. The reorganization of Extension is overwhelming.	1	2	3	4	5
33. The changes taking place in Extension are unnecessary for Extension's future.	1	2	3	4	5
34. I find it frustrating to change to issue based programming.	1	2	3	4	5
35. It is necessary to move from single county program units to multi-county program units to improve Extension's program delivery.	1	2	3	4	5
36. My involvement in team work is necessary to make multi-county program units effective.	1	2	3	4	5
37. Changes in Extension must be made if it is going to be an effective organization.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
38. The changes taking place in Extension will provide better opportunities for me to learn and grow.	1	2	3	4	5
39. The changes in Extension were never made clear to me.	1	2	3	4	5
40. It is difficult to commit oneself to the organizational changes occurring in Extension.	1	2	3	4	5
41. To survive, Extension needs to change how it operates.	1	2	3	4	5
42. I would prefer to stay with single county program units.	1	2	3	4	5
43. I have responded unfavorably to the changes in Extension.	1	2	3	4	5
44. It is worth my time and effort to assist in the transition of Extension's changes.	1	2	3	4	5
45. I find it difficult to introduce ideas into Extension's change process.	1	2	3	4	5
46. Organizational changes in Extension will create new opportunities for me.	1	2	3	4	5
47. Issue based programming is necessary to enhance program relevance in Extension.	1	2	3	4	5
48. The organizational changes do not apply to me.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
49. I find it difficult to meet the challenges of Extension's reorganization.	1	2	3	4	5
50. I find it easy to adjust to change.	1	2	3	4	5
51. I am excited about being a part of the changes in Extension.	1	2	3	4	5
52. I find it difficult to support issue based programming in Extension.	1	2	3	4	5
53. I favor combining counties to create multi-county program units.	1	2	3	4	5
54. I prefer the continuation of the status quo or (business as usual) with Extension.	1	2	3	4	5
55. I like the transition from disciplinary type programming to issue based programming.	1	2	3	4	5
56. I will be able to better use my talents in Extension's new structure.	1	2	3	4	5
57. I have little opportunity to influence the direction in which Extension is changing.	1	2	3	4	5
58. I know about the organizational changes, but will not pay any attention to them.	1	2	3	4	5
59. I have had the opportunity to participate in decisions concerning the organizational changes in Extension.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
60. I oppose the organizational changes taking place in Extension.	1	2	3	4	5
61. The organizational changes occurring in Extension give a feeling of insecurity.	1	2	3	4	5
62. I am comfortable in defending the need for issue based programming.	1	2	3	4	5
63. I am influencing the future of Extension as I participate in the change process.	1	2	3	4	5

In order to analyze this survey in meaningful ways, please fill out the information about yourself.

Extension Agents and Extension Board Members.--Answer number 1 and 2

1. Are you:

____1. Male
____2. Female

2. My age is:

____1. under 30
____2. 30-39
____3. 40-49
____4. 50-59
____5. over 60

Extension Agents only--Answer number 3.

3. How long have you been on the Extension staff? _____years

Extension Board Members only--Answer numbers 4,5, and 6.

4. How long have you served on the board? _____years

5. Do you live:

_____1. on a farm
_____2. rural area/non-farm
_____3. town/city

6. What is the population of the town/city you either live in or closest to?

_____1. town less than 4,000
_____2. town/city 4,000 to 50,000
_____3. over 50,000

THANK YOU FOR PARTICIPATING!!

Please return the survey in the post-paid envelope
by May 26, 1989.

Tondl, 5/89

APPENDIX F

Procrustes Rotation

ROTATION METHOD: PROCRUSTES

REFERENCE STRUCTURE (SEMIPARTIAL CORRELATIONS)

	FACTOR1	FACTOR2	FACTOR3	FACTOR4
NEED1	0.48807	0.08333	-0.12847	-0.00487
NEED7	0.45720	-0.00023	0.05551	-0.05706
NEED8	0.30670	-0.01436	0.17434	-0.04036
NEED33	0.44573	0.00734	0.15216	-0.07624
NEED37	0.52318	0.05394	0.01217	-0.01784
NEED41	0.37951	-0.04858	0.00874	0.10481
NEED22	0.36704	0.08149	0.00363	-0.09954
NEED47	0.33866	0.22489	-0.04076	0.14429
OPEN10	0.17162	0.33324	-0.12975	0.11410
OPEN50	-0.18375	0.31646	0.32430	0.09729
OPEN52	0.20712	0.34085	0.04097	0.13903
OPEN62	0.18343	0.37214	0.05893	0.16606
OPEN25	-0.07217	0.32730	0.01027	0.39674
PO32	0.03026	0.09494	0.30143	-0.07238
PO38	0.16104	0.00812	0.33290	0.11821
PO40	0.02890	0.16691	0.44261	0.05562
PO45	-0.13798	0.24448	0.38816	0.11135
PO49	-0.03424	0.24998	0.46124	-0.00042
PO56	0.02496	0.02241	0.30403	0.27732
PO16	-0.04585	0.08355	0.43265	-0.12854
PO17	0.07254	-0.02607	0.50693	-0.32877
PO20	0.04848	-0.21279	0.56520	0.11495
PO42	0.08824	-0.24720	0.56288	0.06428
PAR29	-0.02514	0.25006	0.07247	0.29604
PAR18	0.10820	0.20674	-0.00247	0.35456
PAR36	-0.10981	0.20393	0.05140	0.52612

APPENDIX G

Statements used from Survey

CLIMATE FOR CHANGE SURVEY

The 26 statements used for data analysis. P = positive statements and N = negative statements.

P 1. To keep up with societal changes, Extension must change. (Need)

N 7. I see no need to change the way Extension has been operating in the past. (Need)

N 8. Changes in Extension's organization will make little difference in improving program effectiveness. (Need)

P 10. I support the focus of Extension programming on issues critical to the economic, social and environmental concerns of Nebraskans. (Open)

P 16. It is quite easy to adjust to changes occurring in Extension. (Potential)

P 17. Changes in Extension's organization create programming confusion. (Potential)

P 18. My involvement in team work is necessary to move toward issue based programming. (Participation)

P 20. I prefer the change in Extension from single county program units to multi-county program units. (Potential)

P 22. It is unnecessary to change to issue based programming to meet people's needs. (Need)

P 25. I look forward to improving the effectiveness of Extension. (Open)

P 29. I am actively participating in the changes occurring in Extension. (Participation)

N 32. The reorganization of Extension is overwhelming. (Potential)

N 33. The changes taking place in Extension are unnecessary for Extension's future. (Need)

P 36. My involvement in team work is necessary to make multi-county program units effective. (Participation)

P 37. Changes in Extension must be made if it is going to be an effective organization. (Need)

P 38. The changes taking place in Extension will provide better opportunities for me to learn and grow. (Potential)

N 40. It is difficult to commit oneself to the organizational changes occurring in Extension. (Potential)

P 41. To survive, Extension needs to change how it operates. (Need)

N 42. I would prefer to stay with single county program units. (Potential)

N 45. I find it difficult to introduce ideas into Extension's change process. (Potential)

P 47. Issue based programming is necessary to enhance program relevance in Extension. (Need)

N 49. I find it difficult to meet the challenges of Extension's reorganization. (Potential)

P 50. I find it easy to adjust to change. (Open)

N 52. I find it difficult to support issue based programming in Extension. (Open)

P 56. I will be able to better use my talents in Extension's new structure. (Potential)

P 62. I am comfortable in defending the need for issue based programming. (Open)

APPENDIX H

Sample of a Computer Program

```
title manova sas;
data aug28;
SET SASDAT.FACTORS;
if posit=. then group=1;
if posit=1 or posit=2 then group=2;
if posit=3 or posit=5 then group=2;
if posit=4 then group=3;
if 0<staffyr<6 then service=1;
if 5<staffyr<11 then service=2;
if 10<staffyr<21 then service=3;
if staffyr>20 then service=4;
IF 0<BRDYR<4 THEN BOARD=1;
IF 3<BRDYR<7 THEN BOARD=2;
IF BRDYR>6 THEN BOARD=3;
IF CHAIR=. THEN DELETE;
PROC GLM;
  CLASS DIST;
  MODEL FACTOR1-FACTOR4=DIST;
  MANOVA H=DIST;
  LSMEANS DIST/S P;
DATA TWO;
SET AUG28;
PROC GLM;
CLASS AGE;
MODEL FACTOR1-FACTOR4=AGE;
MANOVA H=AGE;
LSMEANS AGE/S P;
DATA THREE;
SET AUG28;
PROC GLM;
CLASS SEX;
MODEL FACTOR1-FACTOR4=SEX;
MANOVA H=SEX;
LSMEANS SEX/S P;
DATA FOUR;
SET AUG28;
PROC SORT; BY SEX;
PROC MEANS; VAR FACTOR1--FACTOR4; BY SEX;
DATA FIVE;
SET AUG28;
PROC SORT; BY AGE;
PROC MEANS; VAR FACTOR1--FACTOR4; BY AGE;
DATA SIX;
SET AUG28;
PROC SORT; BY DIST;
PROC MEANS; VAR FACTOR1--FACTOR4; BY DIST;
```